What Is Claimed Is:

1. A method for cutting freeform surfaces on workpieces, particularly for 5-axes cutting, a workpiece being cut by a cutting tool (15) in such a way that a desired freeform surface is achieved, and the cutting tool (15) for cutting purposes being moved along at least one defined cutting path relative to the workpiece, wherein a cutting tool (15) is used, the tool head (17) of which has a greater radius than a tool shank (16) of the cutting tool.

2. The method as recited in Claim 1, wherein first cutting paths or ancillary cutting paths are produced by using a spherical cutter (10) having a tool head radius corresponding to the radius of the tool shank, and second cutting paths for the cutting tool (15) to be used are produced from these first cutting paths or ancillary cutting paths.

3. The method as recited in Claim 2, wherein each of the first cutting paths is made up of a multitude of support points.

4. The method as recited in Claim 2 or 3, wherein normal vectors of the workpiece surface to be cut are produced, a corresponding normal vector being produced for each support point of the first cutting paths or ancillary cutting paths.

5. The method as recited in one or more of Claims 2 through 4, wherein for generating the second cutting paths for the cutting tool (15) to be used the support points of the first cutting paths are shifted relative to the corresponding normal vectors.

6. The method as recited in Claim 5, wherein the support points are shifted by the difference between the radius of the tool head of the spherical cutter (10) and the radius of the tool head of the cutting tool (15) to be used.

7. The method as recited in one or more of Claims 1 or 6, wherein the radius as well as a radius center point of the tool head of the spherical cutter (10) and the radius as well as a radius center point of the tool head of the cutting tool (15) to be used are defined in a tool coordinate system, the origin of the tool coordinate system being a tool reference point in which an axis of the cutting tool intersects one end of the tool head.

8. The method as recited in Claim 7, wherein for generating the second cutting paths for the cutting tool (15) to be used the support points are shifted by the difference between the radius of the spherical cutter (10) and the radius of the cutting tool (15) to be used by using the coordinates of the corresponding radius center points.

9. The method as recited in one or more of Claims 1 or 9, wherein a cutting tool according to Claim 10, 11 or 12 is used.

10. A cutting tool for cutting freeform surfaces on workpieces, particularly for 5-axis cutting, having a tool shank (16) and a tool head (17), the tool shank (16) having a radius and the tool head (17) having a radius, wherein the radius of the tool head (17) is greater than the radius of the tool shank (16).

11. The cutting tool as recited in Claim 10, wherein the radius of the tool head (17) is preferably twice as large as the radius of the tool shank (16), but smaller than a smallest radius of curvature of the freeform surface to be cut.

12. The cutting tool as recited in Claim 10 or 11, wherein the tool head (17) does not protrude laterally beyond a lateral surface of the tool shank (16).

13. A use of a cutting tool as recited in Claims 10, 11 or 12 for manufacturing rotationally symmetric, disk-shaped or ring-shaped components, that is, rotor disks having integrated blading, i.e. so-called blisks (bladed disks), by cutting.